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## Facebook and Twitter, social networks for culture. A first investigation on museums

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## **Facebook and Twitter, social networks for culture. A first investigation on museums**

### **Abstract**

Social networks are tools used by companies in order to maintain contacts with existent customers and gain new clients. In the cultural sector these instruments have been adopted recently. For museums being present on-line is important but it is equally important to know how to use the tools of the Web 2.0 in an effective way. Measuring the engagement rate of museums on the major social networks (Facebook and Twitter) is a first indication of the ability of museums to engage consumers, regardless of its popularity or the number of annual visitors that are registered. Finally, considering the number of Likes or Tweets it is not enough in order to understand the effectiveness of the social strategy of museums. Consumers must feel part of the life of the museum and interact with it. The research analyzes the results obtained by four samples of museums (more or less famous) on their Facebook and Twitter's pages in order to understand the level of interaction reached with the customers.

### **Introduction**

Lot of researches have studied the marketing museums' strategies (Mokwa, Dawson e Prieve, 1980), but there are not clear evidences if such strategies led to some positive results and have contributed to an enhancement of the visitor's experience.

Internet is an important element for millions of people and museums can take advantage of this situation using their presence online with the objective of developing their relationship with users through the use of more innovative and less expensive tools (Chung & Wilkening, Johnstone 2009).

However, it is necessary to understand if the visitor is aware that a lot of information about museums are now available online: study the presence online of museums is the first step toward the understanding of the penetration of the cultural sector on the Web 2.0.

Besides website, Social Networks are an effective tool to get involve users; Social Network generally encourage users to share emotions and interests, creating approval or discordant opinions (Gonzalez, R. *et al.* 2015). From this point of view, digital technologies create new opportunities for museums: they can digitalize collections, offer new services to users, interact with them, etc.

All these tools can satisfy a different public with respect the traditional one (Bakhshy & Throsby 2010): now museums can break the traditional value chain (Minighetti *et al.* 2002).

However, some museums use Internet tools without formal strategic planning, creating websites that function as “electronic brochures” (Lehman & Roach 2011), with minimum impact on the museum itself and its relationships with visitors.

There are 7.2 billion of people leaving all over the world, with different styles of life, and with different predisposition to what is called the digital world. At November 2015 internet users were 3.3 billion against the 0.36 billion in the 2000: in the last 15 years there has been an increase of the 90% in the internet users. Internet penetration has reached the 46% of the total population in the world, with its highest level in North America (87.9%) and the lowest one in Africa (28.2%). Today, the access to internet means connection with the world and this fact has a strong influence on the consumers’ behavior (Balasubramanian et al., 2002). These data clearly show the relevance of the digital world and, consequently, the opportunity that people have to find what they are looking for and to receive suggestions not only by friends and family -the classic word of mouth- but also by other billions of people -the most recent word of mouse-.

### **Aim of the study and Methodology**

If Social Networks and the presence on-line is so important for companies, how museums can use these instruments? How can they measure their on-line performance? Which is the most effective Social Network?

The study aims to analyze the role of Social Networks for museums measuring the engagement rate during a certain period of time, in order to understand their ability to involve the user.

Following the aim of the research we would observe the approach of museums towards the on-line users and analyze how some variables can have a more or less positive effect on engagement, independently of the number of visitors a museum can have.

To address this purpose, we have used the top 100 art museum (for visitors) edited by the Art Newspaper (2014) in order to build different samples of museums. The decision to take into consideration just one ranking is due to the fact that we want to consider museums of the same “nature” (eg. Art museums) in order to have comparable data.

From the top 100 art museum three samples were built:

- Top six museums (out of 100): museums with the highest number of visitors
- Last six museums (out of 100): museums with the lowest number of visitors

- The five Italian museums present in the ranking (out of 100): museums are positioned at different level of the ranking and have different number of visitors

Moreover, we have decided to analyzed a fourth sample composed by six museums of the Piedmont Region: these museums are out of the ranking previously used. Each museum has been analyzed in its Social Networks' activity during a week. The period of time was decided in order to have a good perception of the average activity with the intent to eliminate possible special events that can influence in a positive or negative way the engagement rate.

In the analysis were taken into consideration the museums' activities both on Facebook and Twitter, the two most important and recognized Social Networks. For a week, at the same time (evening for the European museums and morning for the American ones), the 23 museums were monitored on their pages and a series of elements were taken into consideration.

These data allow us to calculate the engagement rate both for Facebook and Twitter for the four samples. In particular, the following formulas were used:

*Facebook Post Engagement Rate* = [(number of likes + number of comments + number of shares) / total fans in a given day] \* 100

*Facebook Engagement Rate* = [(total number of likes + total number of comments + total number of shares) / total fans on the last day] \* 100

*Twitter Tweet Engagement Rate* = [(number of replies + numbers of retweets + number of favorites) / total followers in a given day] \* 100

*Twitter Engagement Rate* = [(total number of replies + total numbers of retweets + total number of favorites) / total followers on the last day] \* 100

The formulas used allow us to confront the effectiveness of the museums social strategy independently of the number of visitors and their popularity around the world. The data gathered were analyzed using SPSS. Data analysis included several stages according to the objective processed.

In conclusion, we would like to reach the following three objectives.

The first objective is to identify the variability and the median of the Engagement Rate obtained by the four samples both on Facebook and Twitter.

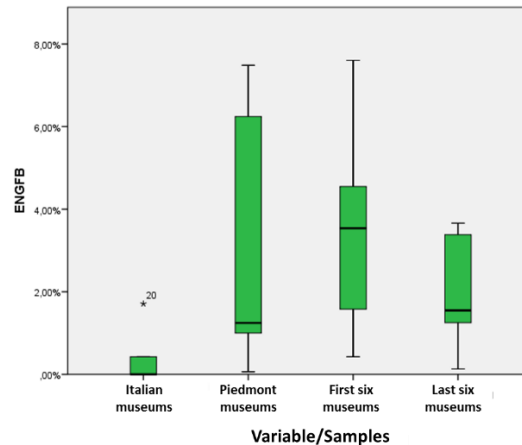
The second objective is to investigate the existent relationship between number of fans/followers and the Engagement Rate obtained both on Facebook and Twitter.

Finally, the third objective is to understand which is the Social Network that allows museums to obtain a higher level of Engagement Rate.

## **Discussion**

### ***Variability and median of the Engagement Rate***

*Fig. 1 Engagement Rate and Variance of the four samples considering Facebook*



Considering the four groups of museums the first evidence is that the Italian sample cannot be included in our analysis because it is not significant: this is a very important point. As shown in the Fig. 1, the most visited Italian museums are active only on Facebook: three out of five museums have published 4 posts in 7 days. The situation on Twitter is even worst: only 1 museum out of five have the personal page on twitter but, during our period of observation, no tweets were published. “Galleria degli Uffizi” is the only representative museum of the group (observation number 20). The results of the other three groups show that the Engagement Rate is higher for the “First six museums”, followed by the “Last six museums” and “Piedmont museums”. The results obtained by the “Last six museums” and “Piedmont museums” are very similar considering the median but the variance is higher for the “Piedmont museums”.

#### ***Number of fans/followers and Engagement Rate both on Facebook and Twitter***

The second analysis has the objective to investigate the relationship between the number of fans/followers and the Engagement Rate of Facebook and Twitter. The values obtained allow us to put in evidence the following results:

- The Engagement Rate increases with one more like, one more comment, one more post;
- The Engagement Rate decreases with one more share;
- The Engagement Rate increases more with a comment than with a like;
- The Engagement Rate increases with the number of post published.

#### ***Distribution of the Engagement Rate for Facebook and Twitter***

The last point of the analysis has the objective to understand which Social Networks helps museums to reach a higher Engagement Rate. Results of the

average values show that the better Engagement Rate is obtained through the use of Facebook.

### **Conclusion**

Analyzing the Facebook and Twitter's pages of the four samples for a week we have observed that the number of fans/followers that a museum has is not fundamental: the capability to engage customers/clients is linked to the strategy followed by the museum and to the ability to communicate with people as they want to communicate. Also the number of real annual visitors is not linked to the online presence of museums: the most important Italian museums are not using social networks, while the Piedmont museums are achieving very good results. From an academic point of view, the research contributes to reduce the existent distance between theory and practice analyzing more in depth the cultural sectors and its use of social media. From a managerial point of view, it allows organizations to adopt and indicator (Engagement Rate) in order to measure their efforts in the social media campaigns. It is very important to understand if customers/clients are engaged and how much they are engaged with the strategy adopted.

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